

From: [Stansfield, Michael](#)
To: [Cheever, Robert](#)
Subject: FW: 2015-04-093 New Madrid Power Plant (143-0004)
Date: Friday, September 27, 2019 2:43:41 PM
Attachments: [ATT00001.txt](#)

Bob,

The below email chain wasn't in the materials that I had forwarded to you for AECI New Madrid. I believe that it is the last dialog between Alana and the applicant regarding the development of the draft operating permit.

Thanks,
Mike

From: Hess, Alana <Alana.Hess@dnr.mo.gov>
Sent: Friday, September 27, 2019 1:15 PM
To: Stansfield, Michael <Michael.Stansfield@dnr.mo.gov>
Subject: FW: 2015-04-093 New Madrid Power Plant (143-0004)

See below.

Thanks,

Alana L. Hess, P.E.
Environmental Engineer III
Air Pollution Control Program
P.O. Box 176

Jefferson City, MO 65102
(573) 526-0189 or (573) 751-4817
Find us on the web at <https://dnr.mo.gov/>

We'd like your feedback on the service you received from the Missouri Department of Natural Resources. Please consider taking a few minutes to complete the department's Customer Satisfaction Survey at <https://www.surveymonkey.com/r/MoDNRsurvey>. Thank you.

From: Langford, Mallory <mlangford@aeci.org>
Sent: Thursday, February 28, 2019 1:46 PM
To: Hess, Alana <Alana.Hess@dnr.mo.gov>
Cc: Henry, Tadd <thentry@aeci.org>; Pinkerton, Blake <BPinkerton@aeci.org>; Robertson, Daniel <drobertson@aeci.org>; Farmer, Kevin <KFarmer@aeci.org>; Wells, Jay <JWells@aeci.org>
Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

Alana,

In attempt to keep our draft permit discussion organized, I've copied/pasted the parts of our 12/31/18 and 01/03/19 conversations that we want to continue to discuss. The black print is from AECI's 12/31/18 email, the blue print is MDNR's 01/03/19 email, and the green print is our most recent response/comments regarding our ongoing discussion and/or the draft permit provided in the 01/03/19 email.

- I. Installation Equipment Listing

- o EP-03
 - 40 CFR Part 63, Subpart ZZZZ needs to be included under the Applicable Requirements section
 - The current EDG listed will be replaced by a like-kind diesel generator in 2019
 - Caterpillar C32, 1000KW, 1474 BHP

Will the new diesel generator be certified under NSPS IIII? When in 2019 does AECI plan to make this replacement?

The installation is planned for May/June 2019. The unit is Tier II certified, and NSPS IIII applicable.

- o EP-04
 - 830 tons per hour was added to the description. This is not in our current permit, can you clarify where this number came from?

EP-04 is bottlenecked by how much the boilers can combust. If you would prefer, I can list the physical MHDR of 4000 tph.

Could you provide the calculation that you used to generate 830 tph? We are still unfamiliar with this description.

- o EP-05A, 05B and 05C
 - 830 tons per hour was added to the description. This is not in our current permit, can you clarify where this number came from?

EP-05 is bottlenecked by how much the boilers can combust. If you would prefer, I can list the physical MHDR of 4000 tph.

Could you provide the calculation that you used to generate 830 tph? We are still unfamiliar with this description.

- o EP-06
 - 830 tons per hour was added to the description. This is not in our current permit, can you clarify where this number came from?

EP-06 is bottlenecked by how much the boilers can combust. If you would prefer, I can list the physical MHDR of 2200 tph.

Could you provide the calculation that you used to generate 830 tph? We are still unfamiliar with this description.

- o Fire Engine Pump needs to be added to the permit
 - 40 CFR 63, Subpart ZZZZ as applicable requirement
 - Cummins, CFP99EZSL9, 365HP
 - Was put into service on 05/01/2016

What fuel type? Is this engine tier certified? Is this engine certified under NSPS IIII or NSPS JJJJ?

The fuel type is diesel, it is tier IIII certified, and NSPS IIII applicable.

- o IA-20 – Soot Blowing Air Compressor Oil Storage Tanks: (3) 1,000 gallons, Soot Blowing Air Compressor Vents

- This emission source needs to remain under the "Emission Units without Specific Limitations", and is not applicable to 10 CSR 10-6.220. As mentioned in our 11/28/2018 email, the vents release compressed air so the system does not become over-pressurized. The name "soot blowing" comes from the name of the process the vents are a part of, but not the function of the vents. There are no emissions being released from the vents.

- III. Emission Unit Specific Emission Limitations

- o Permit Condition 003
 - Under Table 3, the requirement was changed to "The permittee shall comply with the Hg emission limit at all times", however this does not reflect the regulation. Under 3 of Table 3 within Part 63 Subpart UUUUU, it states "You must comply with all applicable emissions limits at all times except for periods that meet the applicable definitions of startup and shutdown in this subpart". We would like the permit to reflect the regulation.
 - Several requirements under this section are related to Hg LEE, however, New Madrid does not intend to comply with Hg via LEE standards. We would like the following sections removed;
 - Under "General Compliance Requirements", 3. b) and 3. f)
 - Under "LEE Requirements", 1. a) ii) and 1. c)
 - Under "Testing Requirements", 1. b)
 - Under Table 5, in section "Testing Requirements" for Hg, we are using Sorbent Trap, not Hg CEMS, and Sections 3.2.1 and 5.1 under the 4th column should be changed to 3.2.2 and 5.2
 - Under Table 7, in section "Continuous Compliance Requirements" the numbering is off
- o Permit Condition 006
 - 4. b) of "CSAPR NOx Annual Trading Program Requirements" includes a CEMS reference to part 75 subpart H. This is a reference to SO2 CEMS. This part of the CSAPR regulation only deals with NOx, therefore, the reference should only include subpart B.

40 CFR Part 75 Subpart H contains NOx Mass Emissions Provisions. It does not deal with SO2. Please clarify.

Section 4. b) of "CSAPR NOx Trading Program Requirements" references part 97.406(d)(1). The regulation states the requirement to monitor and report NOx emissions using CEMS, with the reference "under subpart H of part 75 of this chapter". The permit reads "pursuant to 40 CFR Part 75, Subparts B and H". When comparing the permit to the regulation, it appears that the reference to subpart H in the permit was added erroneously.

- o Permit Condition 009
 - Under "Recordkeeping and Reporting", 1) a) vi) states that the magnitude of SO2 excess emissions should be reported in lb/hr. However, our limit and the units that we are currently reporting in are lb/MMBtu.

You can convert from lb/MMBtu to lb/hr by multiplying the lb/MMBtu SO2 CEMS rate by the heat input rate for the same period.

Regulation 10 CSR 10-6.261(4)(A)1.F states, "Estimate of the magnitude of the SO2 excess emissions expressed in the units of the applicable emission control regulation and operating data and calculations used in estimating the magnitude". Since the state regulation does not specify the units, we would like to continue reporting any SO2 excess emission in the same units as our limit (lb/mmBtu).

- o Permit Condition 011

- The emission limitation is stated in ppmv and mg/m³, and the operational limitation is in ppm by weight. Can both limits be stated in the same units for consistency?

The emission limits are in the regulation and cannot be revised. The operational limit was set according to footnote 17. If we leave the limit in terms of ppmv and mg/m3 AECI would need to stack test or use CEMS to show compliance. I assumed that AECI would prefer sulfur content fuel monitoring, thus I included footnote 17 to convert the limit into ppmw. Is AECI requesting to stack test to show compliance with the ppmv and mg/m3 limits?

We do not intend to change our method of compliance. The request was an attempt to simplify the permit for future interpretation.

- o Permit Condition 013
 - The monitoring schedule stated in 2. and 3. under "Performance Tests and Other Requirements" is stricter than stated in the equivalent permit condition EU0180-001 through EU0230-001 under "Monitoring We would like the frequency to remain the same as in the previous permit.

§70.6(3)(j)(B) states: "Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit, as reported pursuant to paragraph (a)(3)(iii) of this section. Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. Recordkeeping provisions may be sufficient to meet the requirements of this paragraph (a)(3)(j)(B) of this section." Monitoring once every 6 months does not provide sufficient reliable data for the relevant reporting period.

We would like 2. a) under "Monitoring" to be altered to omit, "after permit issuance" within the first sentence. Although our current permit allows the observations to be extended to a semi-annual frequency, New Madrid has maintained a monthly observation schedule.

- Number 7. under, "Performance Tests and Other Compliance Requirements", states that for "units with visible emissions, the permittee shall have a certified Method 9 observer conduct a U.S. EPA test Method 9 opacity observation". This is inconsistent with the previous permit's terminology under permit condition EU0180-001 through EU0230-001, "Monitoring", 1), where the requirement is to perform Method 9 when "units with visible emissions perceived or believed to exceed the applicable opacity standard". We would like the terminology to be the same as the previous permit.

Method 22 does not allow an observer to quantify emissions, only to state if there are or are not visible emissions. Because Method 22 doesn't quantify emissions, the Method 22 observer cannot perceive or believe the visible emissions are less than, equal to, or exceed the standard. Only Method 9 can quantify the percent opacity.

The method 9's and 22's are performed by an individual who is certified through smoke school. Based on his qualification, he is able to determine if the visible emissions pose the possibility of exceeding the opacity standard. We propose that we change the permit condition to read, "The permittee shall conduct opacity readings on the emission unit(s) using the procedures contained in U.S. EPA Test Method 22. The observer must be U.S. EPA Method 9 certified. Readings are only required when the emission unit(s) is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission unit(s) with visible emissions perceived or believed to exceed the applicable opacity standard, the observer would then conduct a U.S. EPA Method 9 observation".

- o Permit Condition 014

- Number 4. of the "operational limitations" is no longer part of plant activity. As stated in the construction permit 082006-011, under the project description, a paddle-mixer is now used to add water to the fly ash after it leaves the ash silo. Once properly mixed with water the mixture is hauled to the waste landfill for disposal. Therefore, this requirement can be removed.

Permit 082006-011 also states: "The current fly ash handling system will be maintained for instances when the mixer cannot be operated either for maintenance or upset situations." **Does the installation no longer loadout fly ash when the mixer is nonoperational?**

When the paddle mixer is nonoperational, the fly ash is held in a silo until the unit is functional. The enclosed tank trailers are no longer onsite.

- Number 1. a) of "Monitoring" states that once every 24-hours the operating pressure drop across the control device should be monitored and recorded. The frequency of this activity in the previous permit (Condition PW001) was stated as "periodically". The common practice of the plant, along with the frequency stated in the Title V Operating Permit of Thomas Hill Energy Center (OP2017-061, Permit Condition PW001, Monitoring/Recordkeeping, 1.) is weekly. To maintain consistency among the plants and to continue the plant's practice, we would like the frequency to be stated at weekly, instead of once every 24-hours.

§70.6(3)(i)(B) states: "Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit, as reported pursuant to paragraph (a)(3)(iii) of this section. Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. Recordkeeping provisions may be sufficient to meet the requirements of this paragraph (a)(3)(i)(B) of this section." Monitoring the pressure drop once a week is not sufficient to demonstrate compliance. We have recently been receiving comments from EPA that pressure drop monitoring isn't even sufficient and insisting that all baghouses use BLDs.

Our position on the frequency of taking weekly pressure drop readings, and the alternate method 22 readings, remains the same. We would like the draft permit to read similar to that of Thomas Hill's operating permit for consistency, and allow the EPA to comment on the condition if they choose to do so.

- Number 1. b) and 2. of "Monitoring" states that Method 22's should be performed once every 24-hours. To remain consistent with the Method 22's performed throughout New Madrid, we would like the frequency to be once every month.

This is different monitoring that 6.220 monitoring. This monitoring is to ensure that the baghouses and dust suppressions/water spray are operating properly. Also, please note that the installation is not required to conduct these Method 22s on the baghouses if they are conducting the daily pressure drop monitoring.

Number 2. of "Monitoring" is a new requirement that is not a part of the current permit (condition PW001). Under the requirements of 013 and 015 of the draft permit, observations will be made on the same equipment as the equipment specified in 014. Therefore, the compliance of conditions 013 and 015 would result in the compliance of number 2. under "Monitoring" in condition 014, and therefore, this requirement can be removed.

o Permit Condition 015

- IA-20 should be removed from this requirement due to the absence of visible emissions while it's operating. Please see explanation above.
- The monitoring schedule stated in 1. and 2. under "Monitoring" is stricter than stated in the equivalent permit condition EU0060-001 through EU0170-001 under "Monitoring". We would like the frequency to remain the same as in the previous permit.

The language in the permit is our 6.220 standard monitoring frequency that all installations are being required to adhere to. This monitoring frequency was agreed to with EPA during the recent revision of 6.220 as sufficient periodic monitoring under §70.6(3)(i)(B).

We would like 2. a) under "Monitoring" to be altered to omit, "after permit issuance" within the first sentence. Although our current permit allows the observations to be extended to a semi-annual frequency, New Madrid has maintained a monthly observation schedule.

- Number 6. under, "Monitoring", states that for "units with visible emissions, the permittee shall have a certified Method 9 observer conduct a U.S. EPA test Method 9 opacity observation". This is inconsistent with the previous permit's terminology under permit condition EU0060-001 through EU0170-001, "Monitoring", 1), where the requirement is to perform Method 9 when "units with visible emissions perceived or believed to exceed the applicable opacity standard". We would like the terminology to be the same as the previous permit.

Method 22 does not allow an observer to quantify emissions, only to state if there are or are not visible emissions. Because Method 22 doesn't quantify emissions, the Method 22 observer cannot perceive or believe the visible emissions are less than, equal to, or exceed the standard. Only Method 9 can quantify the percent opacity.

The method 9's and 22's are performed by an individual who is certified through smoke school. Based on his qualification, he is able to determine if the visible emissions pose the possibility of exceeding the opacity standard. We propose that we change the permit condition to read, "The permittee shall conduct opacity readings on the emission unit(s) using the procedures contained in U.S. EPA Test Method 22. The observer must be U.S. EPA Method 9 certified. Readings are only required when the emission unit(s) is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission unit(s) with visible emissions perceived or believed to exceed the applicable opacity standard, the observer would then conduct a U.S. EPA Method 9 observation".

o Permit Condition 016

- The monitoring schedule stated in 1. and 2. under "Monitoring" is stricter than stated in the equivalent permit conditions EU250-001, and EU0290-003 and EU0300-003 under "Monitoring". We would like the frequency to remain the same as in the previous permit.

The language in the permit is our 6.220 standard monitoring frequency that all installations are being required to adhere to. This monitoring frequency was agreed to with EPA during the recent revision of 6.220 as sufficient periodic monitoring under §70.6(3)(i)(B).

We would like 2. a) under "Monitoring" to be altered to omit, "after permit issuance" within the first sentence. Although our current permit allows the observations to be extended to a semi-annual frequency, New Madrid has maintained a monthly observation schedule.

- Number 6. under, "Monitoring", states that for "units with visible emissions, the permittee shall have a certified Method 9 observer conduct a U.S. EPA test Method 9 opacity observation". This is inconsistent with the previous permit's terminology under permit condition permit conditions EU250-001, and EU0290-003 and EU0300-003 under "Monitoring", 1), where the requirement is to perform Method 9 when "units with visible emissions perceived or believed to exceed the applicable opacity standard". We would like the terminology to be the same as the previous permit.

Method 22 does not allow an observer to quantify emissions, only to state if there are or are not visible emissions. Because Method 22 doesn't quantify emissions, the Method 22 observer cannot perceive or believe the visible emissions are less than, equal to, or exceed the standard. Only Method 9 can quantify the percent opacity.

The method 9's and 22's are performed by an individual who is certified through smoke school. Based on his qualification, he is able to determine if the visible emissions pose the possibility of exceeding the opacity standard. We propose that we change the permit condition to read, "The permittee shall conduct opacity readings on the emission unit(s) using the procedures contained in U.S. EPA Test Method 22. The observer must be U.S. EPA Method 9 certified. Readings are only required when the emission unit(s) is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission unit(s) with visible emissions perceived or believed to exceed the applicable opacity standard, the observer would then conduct a U.S. EPA Method 9 observation".

o Permit Condition 018

- We would like number 2. under "Monitoring/Recordkeeping" to be removed from the permit. As stated under the project description in the construction permit 082006-011, the fly ash is mixed with water in a paddle-mixer. The application of water spray to the fly ash is not an activity performed for its removal.

Special Condition 2.A requires water spray be applied to EP-11 Fly Ash Truck Loading. Please clarify.

Prior to the loading process, water is applied to the fly ash within the paddle mixer such that the moisture content is sufficient to eliminate fugitive dust. Due to the moisture content, there are no fugitive emissions that are generated during the truck loading process which eliminates the need for water spray.

o Permit Condition 020

- The emission limitation is stated in lb/MMBtu, and the operational limitation is in percent by weight. Can both limits be stated in the same units for consistency?

The emission limit is in the regulation and cannot be revised. The operational limit was set according to footnote 19. If we leave the limit in terms of lb/MMBtu AECI would need to stack test or use CEMS to show compliance. I assumed that AECI would prefer sulfur content fuel monitoring, thus I included footnote 19 to convert the limit into weight percent sulfur. **Is AECI requesting to stack test to show compliance with the lb/MMBtu limits?**

We do not intend to change our method of compliance. The request was an attempt to simplify the permit for future interpretation.

- Statement of Basis

o Installation Description

- To reflect the changes made on the front page, "waste oil storage tank" needs to be changed the "used oil storage tank"

o Other Regulatory Determinations

- It states that IA-14 has been removed. The source is still present, but changes have been made to what is captured under this source. Should this be corrected? Current permit states (4) 500 gallons, and (4) 1,000 gallons; Draft permit includes (3) 500 gallons and (1) 1,000 gallons
- It states that IA-17 has been removed. The source is still present, but changes have been made to what is captured under this source. Should this be corrected? Current permit states (2) 36 gallons, (6) 27 gallons, and (1) 15 gallons; Draft permit includes (1) 78 gallons, (1) 36 gallons, (5) 27 gallons, and (1) 15 gallons

- Core Requirements, Reasonable Anticipated Operating Scenarios

o Permit Condition 003

- Table 3 states, "The permittee shall comply with the Hg emission limit at all times", however this does not reflect the regulation. Under 3 of Table 3 within Part 63 Subpart UUUUU, it states "You must comply with all applicable emissions limits at all times except for periods that meet the applicable definitions of startup and shutdown in this subpart". We would like this part of the permit to reflect the regulation.
- Several requirements under this section are related to Hg LEE, however, New Madrid does not intend to comply with Hg via LEE standards. We would like the following sections removed;
 - Under "General Compliance Requirements", 3. b) and 3. f)
 - Under "LEE Requirements", 1. a) ii) and 1. c)
 - Under "Testing Requirements", 1. b)
- Under Table 5, in section "Testing Requirements" for Hg, we are using Sorbent Trap, not Hg CEMS, and Sections 3.2.1 and 5.1 under the 4th column should be changed to 3.2.2 and 5.2
- Under Table 7, in section "Continuous Compliance Requirements" the numbering is off

Thanks,

Mallory Langford

Environmental Analyst

2814 S. Golden Ave.

Springfield, MO 65807

(417) 371-5237 Office

(816) 787-7431 Cell

mlangford@aeci.org



From: Langford, Mallory

Sent: Thursday, January 17, 2019 2:56 PM

To: 'Hess, Alana' <Alana.Hess@dnr.mo.gov>

Cc: Wells, Jay <Wells@aeci.org>; Henry, Tadd <thentry@aeci.org>; Farmer, Kevin <KFarmer@aeci.org>; Pinkerton, Blake <BPinkerton@aeci.org>

Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

Alana,

Thank you for your response concerning our comments on the New Madrid draft permit that was submitted on December 31, 2018. Due to multiple compliance-related reports, we are requesting that our responses to your January 3, 2018 email be submitted by February 28, 2019.

In regards to your comments on December 19, 2018 with respect to the CyClean Additive A; the additive is still in use. However, according to the documentation provided with this email, it is AECI's position that the stockpile and the handling equipment should not be added to the permit as emission sources. On October 30, 2009, an application for a permit to construct with supporting information was submitted to Kendall Hale via email (1st attachment). The supporting information included;

- Form 2.0 for CyClean Additive A Handling (2nd attachment),
- Form (2) 2.7 for CyClean Additive A Haul Roads (3rd and 4th attachments),
th

- Form 2.8 for CyClean Additive A Stockpile (5th attachment),
- Permit Support_NewMadridCYClean spreadsheet (6th attachment),
- CyClean A Analysis (information is confidential) (7th attachment), and
- SCREEN 3 Modeling results (8th attachment).

In the body of the email, it states that AECl would be requesting a pre-permit construction waiver because the new activities are “well below the de minimus limits and SCREEN 3 modeling clearly demonstrates impacts below the applicable risk assessment levels”. The 9th attachment is that pre-permit construction waiver, granted by Susan Heckenkamp.

It is our understanding that the CyClean Additive A stockpile and handling as emission sources were fully vetted at the time the construction permit was issued. We presume the information supplied with the 2009 permit to construct application demonstrated the Additive A's de minimus levels, and therefore, was not included in the construction permit as emission sources with specific conditions.

Thank you,

Mallory Langford

Environmental Analyst

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mlangford@aeci.org



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From: Hess, Alana <Alana.Hess@dnr.mo.gov>

Sent: Thursday, January 3, 2019 2:24 PM

To: Langford, Mallory <mlangford@aeci.org>

Cc: Wells, Jay <jwells@aeci.org>; Henry, Tadd <thentry@aeci.org>; Farmer, Kevin <kfarmer@aeci.org>; Pinkerton, Blake <BPinkerton@aeci.org>

Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

****EXTERNAL E-MAIL** Think before clicking links or attachments.**

Mallory,

Thank you for your comments. I hope that you had a wonderful holiday season. I look forward to receiving your response to my December 19th e-mail. Please see my responses to your comments below. Please let me know if you would like to discuss any of my responses in more detail.

Please review the attached revised draft operating permit and submit any questions/comments you may have as well as responses to my questions (**in bold**) in the e-mail below by **January 18, 2019**.

Thanks,

Alana L. Hess, P.E.

Air Pollution Control Program

P.O. Box 176

Jefferson City, MO 65102

(573) 526-0189

We'd like your feedback on the service you received from the Missouri Department of Natural Resources. Please consider taking a few minutes to complete the department's Customer Satisfaction Survey at https://secure-web.cisco.com/1FD82n2PlenC06gKIWH4c-s0QZ5pJmUMZgW1S9VauU1YIBfzrwGtcMG7JfYvURECijehTwnp7JfHHPGfeZof_dneRXHBYe_PtlnFhnYBD18aZsmxJlUamZsy8IreU6ghr14Ff6gGDXRUcD_QamBy_gBLeUhyYvRm2wlpUxdnZrHllSpFdcM_U3df2xy31LzPNmVA4Z83XYZeUdgrvGTK7e9Bz319kk4bh1EC188skk8TJOH-pW66mUO_FZMxUHCoxiWQgnI02Kilg_HKyO/https%3A%2F%2Fwww.surveymonkey.com%2F%2FmoDNRsurvey. Thank you.

From: Langford, Mallory <mlangford@aeci.org>

Sent: Monday, December 31, 2018 9:16 AM

To: Hess, Alana <Alana.Hess@dnr.mo.gov>

Cc: Wells, Jay <jwells@aeci.org>; Henry, Tadd <thentry@aeci.org>; Farmer, Kevin <kfarmer@aeci.org>; Pinkerton, Blake <BPinkerton@aeci.org>

Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

Alana,

We are still working on a response to your question from your email on December 19th. However, below are our comments/questions for the New Madrid draft permit that was attached to the October 30th email.

- Cover Page

- o The zip code under, *Installation Name and Address*, should be 63866. *Ok.*
- o Under the *Installation Description*, the third sentence references "waste oil storage tank(s)". This should be "used oil storage tank(s). *Ok.*

- I. Installation Equipment Listing, Emission Units with Limitations

- o Please include the emission unit numbers for easy reference. For example, the cyclone boilers #1 and #2 are EU0010 and EU0020, respectively. We are attempting to streamline emission unit numbering between the operating permit and the EIQ unit; therefore, the emission source labeling in the permit matches the labeling submitted in your 2017 EIQ. We do not want to continue having emission sources labeled differently in the operating permit and the EIQ.
- o EP-01 and EP-02
 - Bituminous coal should be added to the description *Ok.*
- o EP-03
 - 40 CFR Part 63, Subpart ZZZZ needs to be included under the Applicable Requirements section *Ok.*
 - The current EDG listed will be replaced by a like-kind diesel generator in 2019
 - Caterpillar C32, 1000KW, 1474 BHP

Will the new diesel generator be certified under NSPS IIIB? When in 2019 does AECl plan to make this replacement?

- o EP-04
 - 830 tons per hour was added to the description. This is not in our current permit, can you clarify where this number came from?

EP-04 is bottlenecked by how much the boilers can combust. If you would prefer, I can list the physical MHDR of 4000 tph.

- o EP-05A, 05B and 05C
 - Why were A, B and C added to the emission source ID's? Originally, they were all captured under EP-05.

The 1980 coal conveyor A3 (labeled EP-05C) is subject to a different opacity standard than the 1970 conveyors A1, A2, B1, B2, C1, C2, D1, and D2 (labeled EP-05A and EP-05B); therefore, EP-05 was split.

- o EP-05
 - 830 tons per hour was added to the description. This is not in our current permit, can you clarify where this number came from?

EP-05 is bottlenecked by how much the boilers can combust. If you would prefer, I can list the physical MHDR of 4000 tph.

- o EP-06
 - 830 tons per hour was added to the description. This is not in our current permit, can you clarify where this number came from?

EP-06 is bottlenecked by how much the boilers can combust. If you would prefer, I can list the physical MHDR of 2200 tph.

- o EU0290
 - Date should be 2017 *Ok.*
- o EU0300
 - Date should be 2016 *Ok.*
- o EU0500 (Barge Unloader)
 - This has been removed from the permit, however, we wanted to clarify that although the equipment is not in use, it is still onsite with plans of dismantle and removal within the next year. *Ok.*
- o Fire Engine Pump needs to be added to the permit
 - 40 CFR 63, Subpart ZZZZ as applicable requirement
 - Cummins, CFP9EEZSL9, 365HP
 - Was put into service on 05/01/2016

What fuel type? Is this engine tier certified? Is this engine certified under NSPS IIIB or NSPS IIIB?

- I. Installation Equipment Listing, Emission Units without Limitations

- o IA-17 should include, Parts Washers: (1) 78 gallons, (1) 36 gallons, (5) 27 gallons, and (1) 15 gallons *Ok.*
- o (4) Diesel Portable Heaters need to be added to the permit
 - Used for space heating in the coal yard tunnels when necessary
 - Allmand, MH-1000 with CAT C1.5 engine
 - Acquired on 11/18/2016

Ok.

- III. Emission Unit Specific Emission Limitations

- o Permit Condition 003
 - Throughout this section "Director" has replaced "EPA Administrator" and/or "Administrator". We wanted to confirm that the use of "Director" was in reference to MDNR Air Pollution Control Program's Compliance/Enforcement Section.

Yes, Missouri has accepted delegation of MACT UUUUU. Our Compliance/Enforcement Section ultimately reviews all of the information submitted to the Director for compliance with this regulation.

- We are currently complying with the part 63 Subpart UUUUU PM requirements through quarterly performance tests which is included in the permit condition. Under the "General Compliance Requirements" of this condition, we would like to include the part of the regulation that gives us the option to comply through PM CEMS for future flexibility.

Since you are not currently using PM CEMS, I'd like to leave the permit condition as it is currently is for clarity purposes; however, I have included the PM CEMS requirements as a reasonably anticipated operating scenario in Section V of the draft permit.

- Under, #5 of "Continuous Compliance Requirements", Tables 1 and 3 to MACT UUUUU are referenced, however, it should be Tables 2 and 3 to MACT UUUUU. *Ok.*

o Permit Condition 005

- Has CAIR been taken out of the SIP? No. Missouri's SIP approved regulations are available on EPA's website at: https://secure-web.cisco.com/1AeCK4oexlyxhw1TAF8LGWoAtxGO7StpxP0dhf1zDYXyEDHb3_7J6TF2YQqtW9w5p48jmSoq1XtlrabFmAlFYdi7cV4HFjq55Wvd8offYp5KhGu5uUlDaK11aaaArfwqW2AxFamN7d3Jsi-YlYd12elnSpAY_dvalys0TEQclnqAFR_v8HYV9Cvksd4Z8e4N9d5_eUlHA38fScrfepZBagez77Yfos2_10FeyEdyFrCWZlVpXtWxIUHGGM5RFE53a9oYXMoEP6w/https%3A%2F%2Fwww.epa.gov%2Fsi-ps-mo%2Fmissouri

[sip-chapter-6-air-quality-standards-definitions-sampling-and-reference-methods-and](#) And, if not, do we need to include it? Yes, CAIR is still federally enforceable. Part 70 operating permits must include all applicable requirements. Will it be out of the SIP by the time this permit is finalized? Our SIP Unit Chief, Mark Leath, estimates CAIR will be officially out of our SIP by the summer/fall of 2020.

- o Permit Condition 006
 - 4. b) of "CSAPR NOx Annual Trading Program Requirements" includes a CEMS reference to part 75 subpart H. This is a reference to SO2 CEMS. This part of the CSAPR regulation only deals with NOx, therefore, the reference should only include subpart B.
- 40 CFR Part 75 Subpart H contains NOx Mass Emissions Provisions. It does not deal with SO2. Please clarify.
- 3. f) ii) *Limited Authorization* of "CSAPR NOx Annual Trading Program Requirements" does not include a subpart reference (AAAAA), where subparts CCCCC and EEEEE are referenced in their respective sections. Ok.
- The subtitles under "CSAPR SO2 Group 1 Trading Program Requirements" are not italicized. Ok.

- o Permit Condition 008
 - Has the incorporation of 10 CSR 10-6-261 into Missouri's SIP been approved by the EPA? No. Missouri's SIP approved regulations are available on EPA's website at: https://secure-web.cisco.com/1651MeqoiCdgcM30iRQ0ogABycdxI_Eq6dfy4FLaWBjONHGTcZ_Ki4djayPbiUPF9uORfQw-VMguB3WGCfCyYveJndRtismADWW4osePOTTnHA7u9f1EwU6x-RA_DdaUY2seWig7zWjTXCjuMFULMGUz7kuEBfc2kqXENTcgltQpO-1K79oGX1_500DasVef4KhCX9Do7ePyYel00UG1f4tUzLsf_AMF4o6zeDRUqor7B2_07LKdEiUzM78irY8Ns8BwF6w43psNIse/https%3A%2F%2Fwww.epa.gov%2Ftips-mo%2Fmissouri-sip-epa-approved-missouri-regulations-40-cfr-521320c. Can this be removed from the permit? 6.260 is still federally enforceable as it is in our SIP. Part 70 operating permits must include all applicable requirements.

- o Permit Condition 009
 - Several of the requirements under 1. in the "Recordkeeping and Reporting" section are currently being included in the SSM exceedance reports, but not in the quarterly reports. For every exceedance an SSM report is submitted, so we believe that including the information listed below would be redundant and unnecessary. We would like the sections listed below to be removed.
 - a) ii) – Name and number of person responsible for the source...
 - a) vii) – Measure to mitigate...
 - a) viii) – Measures taken to remedy...
 - b) – Maintain a list of modifications to each boiler's operating procedures...

These reports are for "excess emissions other than SSM excess emissions"; therefore, these reports are separate reports that do not contain the same information as your SSM reports. As these are different reports requiring different information, I cannot remove this applicable requirement from the permit.

- Under "Recordkeeping and Reporting", 1) a) vi) states that the magnitude of SO2 excess emissions should be reported in lb/hr. However, our limit and the units that we are currently reporting in are lb/MMBtu. You can convert from lb/MMBtu to lb/hr by multiplying the lb/MMBtu SO2 CEMS rate by the heat input rate for the same period.
- Number 4. of "Recordkeeping and Reporting" is redundant and captured with requirements 3. and 5. Can this requirement be removed?

No, this requirement cannot be removed. This is an applicable requirement. This requirement allows us to request additional information beyond the items in #3 and #5 if necessary.

- o Permit Condition 010
 - Update EP-03 description with the new EDG I need more information on new unit, see above. New engine most likely subject to NSPS IIII.
 - Update the emission sources with the fire pump engine
 - Under 2. b) of the "Applicability" section, the permit states that the engine can operate "for any combination of purposes specified in part 63.6640(f)(2)(i) for a maximum of 100 hours per calendar year". However, part 63.6640(f)(2) states that the engine can operate under any combination of purposes specified in part 63.6640(f)(2)(i) through (iii). Why was part 63.6640(f)(2)(ii) and (iii) not included in the permit? Those two provisions were vacated by court action, see the attached RICE Vacatur Guidance 041516.pdf And, can they be added? No. Vacated provisions are not effective.
- o Permit Condition 011
 - Update EP-03 description with the new EDG I need more information on new unit, see above. New engine most likely subject to NSPS IIII.
 - Has the incorporation of 10 CSR 10-6-261 into Missouri's SIP been approved by the EPA? No. Missouri's SIP approved regulations are available on EPA's website at: https://secure-web.cisco.com/1651MeqoiCdgcM30iRQ0ogABycdxI_Eq6dfy4FLaWBjONHGTcZ_Ki4djayPbiUPF9uORfQw-VMguB3WGCfCyYveJndRtismADWW4osePOTTnHA7u9f1EwU6x-RA_DdaUY2seWig7zWjTXCjuMFULMGUz7kuEBfc2kqXENTcgltQpO-1K79oGX1_500DasVef4KhCX9Do7ePyYel00UG1f4tUzLsf_AMF4o6zeDRUqor7B2_07LKdEiUzM78irY8Ns8BwF6w43psNIse/https%3A%2F%2Fwww.epa.gov%2Ftips-mo%2Fmissouri-sip-epa-approved-missouri-regulations-40-cfr-521320c. Can this be removed from the permit? 6.260 is still federally enforceable as it is in our SIP. Part 70 operating permits must include all applicable requirements
 - The emission limitation is stated in ppmv and mg/m³, and the operational limitation is in ppm by weight. Can both limits be stated in the same units for consistency? The emission limits are in the regulation and cannot be revised. The operational limit was set according to footnote 17. If we leave the limit in terms of ppmv and mg/m³ AECI would need to stack test or use CEMS to show compliance. I assumed that AECI would prefer sulfur content fuel monitoring, thus I included footnote 17 to convert the limit into ppmv. Is AECI requesting to stack test to show compliance with the ppmv and mg/m³ limits?
 - Number 2. d) of "Recordkeeping and Reporting" requires the heating value of the fuel to be stated on fuel documentation. This is not a current requirement of the existing operating permit, and would be represented by a constant fuel heating value. Can this requirement be removed? Ok.
 - Number 4. d) of "Recordkeeping and Reporting" is redundant and captured with requirements 3. and 5. Can this requirement be removed? Ok.
- o Permit Condition 012
 - Update EP-03 description with the new EDG I need more information on new unit, see above. New engine most likely subject to NSPS IIII.
 - We believe that numbers 1. and 2. under "Reporting and Recordkeeping" should be omitted. The requirements are satisfied by 10 CSR 10-6.050 which is listed under the Core Permit Requirements. These are "any excess emissions other than SSM emissions already required to be reported under 10 CSR 10-6.050". i.e. if you have excess emissions that aren't SSM you do this 6.261 report. If you have SSM excess emissions you do the 6.050 report. In addition, the timeframe stated in number 1. is unclear and could be interpreted that the requirement is to submit quarterly reports. The requirement is to submit these non-SSM excess emissions reports on a quarterly basis, so your interpretation is correct. However, being that the compliance method is not CEMS, quarterly reports are not necessary. The compliance method is fuel delivery records. If you receive and use a delivery of fuel that does not comply with the regulation this would result in excess emissions and wouldn't be considered SSM. You would have to submit the quarterly excess emissions report to us for that quarter.
 - Number 4. d) of "Recordkeeping and Reporting" requires the heating value of the fuel to be stated on fuel documentation. This is not a current requirement of the existing operating permit, That's because 6.261 is a new requirement that is not in the current operating permit and would be represented by a constant fuel heating value. Can this requirement be removed? No. This is an applicable requirement.

Number 7. of "Recordkeeping and Reporting" is redundant and captured with requirements 6. and 8. Can this requirement be removed? No, this requirement cannot be removed. This is an applicable requirement. This requirement allows us to request additional information beyond the items in #6 and #8 if necessary.

- o Permit Condition 013
 - The monitoring schedule stated in 2. and 3. under "Performance Tests and Other Requirements" is stricter than stated in the equivalent permit condition EU0180-001 through EU0230-001 under "Monitoring We would like the frequency to remain the same as in the previous permit. §70.6(3)(i)(B) states: "Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit, as reported pursuant to paragraph (a)(3)(iii) of this section. Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. Recordkeeping provisions may be sufficient to meet the requirements of this paragraph (a)(3)(i)(B) of this section." Monitoring once every 6 months does not provide sufficient reliable data for the relevant reporting period.
 - Number 7. under, "Performance Tests and Other Compliance Requirements", states that for "units with visible emissions, the permittee shall have a certified Method 9 observer conduct a U.S. EPA test Method 9 opacity observation". This is inconsistent with the previous permit's terminology under permit condition EU0180-001 through EU0230-001, "Monitoring", 1), where the requirement is to perform Method 9 when "units with visible emissions perceived or believed to exceed the applicable opacity standard". We would like the terminology to be the same as the previous permit. Method 22 does not allow an observer to quantify emissions, only to state if there are or are not visible emissions. Because Method 22 doesn't quantify emissions, the Method 22 observer cannot perceive or believe the visible emissions are less than, equal to, or exceed the standard. Only Method 9 can quantify the percent opacity.
- o Permit Condition 014
 - Number 4. of the "operational limitations" is no longer part of plant activity. As stated in the construction permit 082006-011, under the project description, a paddle-mixer is now used to add water to the fly ash after it leaves the ash silo. Once properly mixed with water the mixture is hauled to the waste landfill for disposal. Therefore, this requirement can be removed. Permit 082006-011 also states: "The current fly ash handling system will be maintained for instances when the mixer cannot be operated either for maintenance or upset situations." Does the installation no longer loadout fly ash when the mixer is nonoperational?
 - Number 1. a) of "Monitoring" states that once every 24-hours the operating pressure drop across the control device should be monitored and recorded. The frequency of this activity in the previous permit (Condition PW001) was stated as "periodically". The common practice of the plant, along with the frequency stated in the Title V Operating Permit of Thomas Hill Energy Center (OP2017-061, Permit Condition PW001, Monitoring/Recordkeeping, 1.) is weekly. To maintain consistency among the plants and to continue the plant's practice, we would like the frequency to be stated at weekly. §70.6(3)(i)(B) states: "Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit, as reported pursuant to paragraph (a)(3)(iii) of this section. Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. Recordkeeping provisions may be sufficient to meet the requirements of this paragraph (a)(3)(i)(B) of this section." Monitoring the pressure drop once a week is not sufficient to demonstrate compliance. We have recently been receiving comments from EPA that pressure drop monitoring isn't even sufficient and insisting that all baghouses use BLDs.
 - Number 1. b) and 2. of "Monitoring" states that Method 22's should be performed once every 24-hours. To remain consistent with the Method 22's performed throughout New Madrid, we would like the frequency to be once every month. This is different monitoring than 6.220 monitoring. This monitoring is to ensure that the baghouses and dust suppressions/water spray are operating properly. Also, please note that the installation is not required to conduct these Method 22s on the baghouses if they are conducting the daily pressure drop monitoring.

- o Permit Condition 015
 - The monitoring schedule stated in 1. and 2. under "Monitoring" is stricter than stated in the equivalent permit condition EU0060-001 through EU0170-001 under "Monitoring". We would like the frequency to remain the same as in the previous permit. The language in the permit is our 6.220 standard monitoring frequency that all installations are being required to adhere to. This monitoring frequency was agreed to with EPA during the recent revision of 6.220 as sufficient periodic monitoring under §70.6(3)(i)(B).
 - Number 6. under, "Monitoring", states that for "units with visible emissions, the permittee shall have a certified Method 9 observer conduct a U.S. EPA test Method 9 opacity observation". This is inconsistent with the previous permit's terminology under permit condition EU0060-001 through EU0170-001, "Monitoring", 1), where the requirement is to perform Method 9 when "units with visible emissions perceived or believed to exceed the applicable opacity standard". We would like the terminology to be the same as the previous permit. Method 22 does not allow an observer to quantify emissions, only to state if there are or are not visible emissions. Because Method 22 doesn't quantify emissions, the Method 22 observer cannot perceive or believe the visible emissions are less than, equal to, or exceed the standard. Only Method 9 can quantify the percent opacity.

- o Permit Condition 016
 - The monitoring schedule stated in 1. and 2. under "Monitoring" is stricter than stated in the equivalent permit conditions EU250-001, and EU0290-003 and EU0300-003 under "Monitoring". We would like the frequency to remain the same as in the previous permit. The language in the permit is our 6.220 standard monitoring frequency that all installations are being required to adhere to. This monitoring frequency was agreed to with EPA during the recent revision of 6.220 as sufficient periodic monitoring under §70.6(3)(i)(B).
 - Number 6. under, "Monitoring", states that for "units with visible emissions, the permittee shall have a certified Method 9 observer conduct a U.S. EPA test Method 9 opacity observation". This is inconsistent with the previous permit's terminology under permit condition permit conditions EU250-001, and EU0290-003 and EU0300-003 under "Monitoring", 1), where the requirement is to perform Method 9 when "units with visible emissions perceived or believed to exceed the applicable opacity standard". We would like the terminology to be the same as the previous permit. Method 22 does not allow an observer to quantify emissions, only to state if there are or are not visible emissions. Because Method 22 doesn't quantify emissions, the Method 22 observer cannot perceive or believe the visible emissions are less than, equal to, or exceed the standard. Only Method 9 can quantify the percent opacity.

- o Permit Condition 018
 - Within the "Emission Limitation", the "modified fly ash/bottom ash handling system" was renamed "Utility Waste Disposal Process". "Utility Waste Disposal Process" does not capture all the equipment listed in this permit condition. To remain consistent with the construction permit, we would like the name to remain "modified fly ash/bottom ash handling system". Ok.
 - We would like number 2. under "Monitoring/Recordkeeping" to be removed from the permit. As stated under the project description in the construction permit 082006-011, the fly ash is mixed with water in a paddle-

- mixer. The application of water spray to the fly ash is not an activity performed for its removal. *Special Condition 2.A requires water spray be applied to EP-11 Fly Ash Truck Loading. Please clarify.*
- We would like number 4. under "Monitoring/Recordkeeping to be removed from the permit. The construction permit 082006-011 states under "Emissions/Controls Evaluation", that "Undocumented watering will reduce emissions from the unpaved haul roads by approximately 50". The construction permit was written without the requirement of documenting the amount of water applied to the unpaved haul road. In addition, by complying with operational limitation #3., we are satisfying the requirements of the construction permit. We can try. EPA has been pushing back on the "as necessary to demonstrate compliance with 10 CSR 10-6.170" monitoring language.
 - o Permit Condition 020 – Does not exist I renumbered 021 and 020.
 - o Permit Condition 021 (now 020)
 - Has the incorporation of 10 CSR 10-6.261 into Missouri's SIP been approved by the EPA? No. Missouri's SIP approved regulations are available on EPA's website at: https://secure-web.cisco.com/165fMteqicfCdgM30iR00ogAByc4xl_Eg6dfy4FLaWBj0NHGTC+_K4dgyjPbjUPF9uORfOw-VMgu3WGCfCyYelndRtlsmADWW4osePOTTnHAi7u9f1FwU6x-PA_DdaU7zeWjg7zWITXCUuMfULM6Uz7KueBfc2kqXENTcgltqOpI0_1K7i9oGX1_500DqvVeFkKhCX9Do7ePvYel00UG1f4TuZlsF_AMF4o6zeDRUqor12B2_07LkdEiUzM78lrY8Ns8RwF6w43psNlsg/https%3A%2F%2Fwww.epa.gov%2Fzips-mo%2Fmissouri-sip-epa-approved-missouri-regulations-40-cfr-521320c. Can this be removed from the permit? 6.260 is still federally enforceable as it is in our SIP. Part 70 operating permits must include all applicable requirements
 - The emission limitation is stated in lb/MMBtu, and the operational limitation is in percent by weight. Can both limits be stated in the same units for consistency? The emission limit is in the regulation and cannot be revised. The operational limit was set according to footnote 19. If we leave the limit in terms of lb/MMBtu AECI would need to stack test or use CEMS to show compliance. I assumed that AECI would prefer sulfur content fuel monitoring, thus I included footnote 19 to convert the limit into weight percent sulfur. **Is AECI requesting to stack test to show compliance with the lb/MMBtu limits?**
 - Number 2. d) of "Recordkeeping and Reporting" requires the heating value of the fuel to be stated on fuel documentation. This is not a current requirement of the existing operating permit, and would be represented by a constant fuel heating value. Can this requirement be removed? **Ok.**
 - Number 4. of "Recordkeeping and Reporting" is redundant and captured with requirements 3. and 5. Can this requirement be removed? **Ok.**
 - o Permit Condition 022 (now 021)
 - We believe that numbers 1. a) and b). under "Reporting and Recordkeeping" should be omitted. The requirements are satisfied by 10 CSR 10-6.050 which is listed under the Core Permit Requirements. In addition, the timeframe stated in number 1. a) is unclear and could be interpreted that the requirement is to submit quarterly reports. However, being that the compliance method is not CEMS, quarterly reports are not necessary. These are "any excess emissions other than SSM emissions already required to be reported under 10 CSR 10-6.050". i.e. if you have excess emissions that aren't SSM you do this 6.261 report. If you have SSM excess emissions you do the 6.050 report. The requirement is to submit these non-SSM excess emissions reports on a quarterly basis, so your interpretation is correct.
 - Number 2. d) of "Recordkeeping and Reporting" requires the heating value of the fuel to be stated on fuel documentation. This is not a current requirement of the existing operating permit That's because 6.261 is a new requirement that is not in the current operating permit, and would be represented by a constant fuel heating value. Can this requirement be removed? **No, this is an applicable requirement.**
 - Number 5. of "Recordkeeping and Reporting" is redundant and captured with requirements 4. and 6. Can this requirement be removed? **No, this requirement cannot be removed. This is an applicable requirement. This requirement allows us to request additional information beyond the items in #4 and #6 if necessary.**
 - o General Permit Conditions – 10 CSR 10-6.020(2)(R)34 Responsible Official
 - We would like this section to read similar to that of the operating permit of Thomas Hill OP2017-061, with the following positions listed that are authorized to act in the capacity of Responsible Official
 - New Madrid Plant Manager
 - New Madrid Assistant Plant Manager
 - Title IV Designated Representative
 - Title IV Alternate Designated Representative

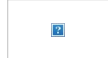
Ok.

- o Statement of Basis, Other Regulatory Determinations
 - 10 CSR 10-6.220 was also applied to permit condition 016 **Ok**
 - 10 CSR 10-6.260 was also applied to permit condition 021 **Ok**
 - 10 CSR 10-6.261 was also applied to permit condition 022 **Ok**

Thanks, and have a happy New Year.

Mallory Langford

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mlangford@aeci.org



From: Hess, Alana <Alana.Hess@dnr.mo.gov>

Sent: Wednesday, December 19, 2018 4:44 PM

To: Langford, Mallory <mlangford@aeci.org>

Cc: Wells, Jay <Wells@aeci.org>; Henry, Tadd <thenry@aeci.org>; Farmer, Kevin <KFarmer@aeci.org>; Pinkerton, Blake <BPinkerton@aeci.org>

Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

****EXTERNAL E-MAIL** Think before clicking links or attachments.**

Mallory,

Thank you for the additional information you submitted on November 28, 2018. I have a followup question:

1. The CyClean Permit 122009-001 indicates:

CyClean has two components: A and B. CyClean Additive A is a granular material, while CyClean Coal Additive B is a liquid. The Additive A is delivered by covered truck and unloaded onto a stockpile. A front-end loader transfers the material from the stockpile to a hopper. From the hopper, the material is transferred to a screw conveyor and delivered via a bucket elevator to the main coal conveyor belt. The Additive B is added to Additive A at the top of the bucket elevator. The CyClean coal additives are then routed along with the coal on the coal conveyor belt to the boilers.

CyClean B contains one of two halide salts in solution: sodium bromide or potassium iodine. Once in the boiler, the salts will thermally decompose in the same way as a native halide in the coal and produce HBr, Br₂, or the analogous iodine acid/iodine. Total halogens from the CyClean and PRB are below that of bituminous coal. Since Additive B is in a liquid form and contains no VOCs or HAPs, there are no emissions associated with its handling.

CyClean Additive A is added to the coal at a ratio of 0.006 pound of CyClean Additive A to each pound of coal. Based on a coal maximum rate of 738 tons per hour, CyClean Additive A will be added at maximum hourly design rate of 4.43 tons per hour.

If CyClean Additive A is still in use, I need to add its stockpile and handling equipment (which are emission sources) to the permit. As noted in Permit 122009-001 no emissions are associated with the storage and handling of CyClean

Additive B. So, is CyClean Additive A still in use?

I'll be watching for your comments on the draft permit on December 31, 2018.

Have a happy holiday season!

Thanks,

Alana L. Hess, P.E.

Air Pollution Control Program

P.O. Box 176

Jefferson City, MO 65102

(573) 526-0189

We'd like your feedback on the service you received from the Missouri Department of Natural Resources. Please consider taking a few minutes to complete the department's Customer Satisfaction Survey at https://secure-web.cisco.com/1iPlidXcfcQULhFp7g5z7PdeFkaK75Mui78MMVj7DkXfP5sy40Be6flGcy8UqvEVMF1MuHVS1xjRvV5lwlid2cd_FHxrGXou2VmovWtUjCE3oPUdl24NxasELNoFmWKKzHY98r1MfTKdbOmeX8MYN8QapIa2H0VRGGoXpvrPyUHy-WQ74G_1m-hp4n7rIUjqiVHIEFO2ebkMS_Jj6h4M8MGDfCyp3yXn8mRcndEMGacum026R0mdl-YOoCo56uVMXTMaY6_vtSKv9MwBZs1lnQ/https%3A%2F%2Fwww.surveymonkey.com%2F%2FmoDN8survey. Thank you.

From: Langford, Mallory <mlangford@aeci.org>

Sent: Wednesday, November 28, 2018 3:12 PM

To: Hess, Alana <Alana.Hess@dnr.mo.gov>

Cc: Wells, Jay <Wells@aeci.org>; Henry, Tadd <thenry@aeci.org>; Farmer, Kevin <KFarmer@aeci.org>; Pinkerton, Blake <BPinkerton@aeci.org>

Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

Alana,

Below are the answers to your questions that you sent on October 30th. Please let me know if you need additional clarification or have any more questions.

As mentioned in my November 19th email, we are still in the process of reviewing the draft permit and compiling our comments. We would like to extend the due date of our comments to December 31st. Please let us know if this is an issue.

1. Now that the landfill is in operation, is FE-03 Fly Ash Unloading to the Ash Ponds still an active emission source? i.e., does FE-03 need to remain in the permit?

New Madrid is placing fly ash in the lined ash pond under the beneficial reuse exception. Therefore, FE-03 will need to remain active for 2018RY and 2019RY EIQ purposes.

2. Does the installation use CyClean still? i.e., do the CyClean emission sources need to be included in the permit?

Construction permit number 122010-012 addresses the use of CyClean in the cyclone boilers. New Madrid Units 1 and 2 have a limit of 0.55 lb/MMBtu on a 30-day rolling average, along with an annual limit of 34,449 tons per year. The CyClean operation itself is not an emission source.

3. Questions regarding IA-04 (5) Glycol tanks and IA-18 Glycol Heater Vents:

- a. By Glycol do you mean Ethylene Glycol (107-121-1)? If not, ethylene glycol, would you please provide a CAS # or SDS for the glycol? This doesn't really have any permitting implications, I'm just trying to get accurate information for the PTE in the Statement of Basis.

The plant uses ethylene glycol (inhibited).

- b. What is this glycol used for? This doesn't really have any permitting implications, I'm just trying to get accurate information for the installation/emission source description in the Statement of Basis.

The glycol is used to preheat combustion air in the boiler. It is also used to vaporize ammonia as part of the SCR process.

- c. Is the heater electric or does it combust fuel? If it combusts fuel:

The glycol heaters are electric fans flowing across heater coils filled with warm glycol. There is no fuel combustion.

- i. Please indicate the type and MHDR.

- ii. Please explain why AECI believes this heater does or does not meet the MACT DDDDD definition of process heater.

4. Could you describe IA-20 Soot Blowing Air Compressor Vents in more detail? Please explain why AECI believes this emission source does or does not emit visible emissions.

The soot blowing air compressors are electric, and the vents are designed to allow compressed air to vent so the system does not over pressurize.

5. Please explain why AECI believes IA (2) 2.29 MMBtu/hr LPG-fired heaters and (2) 2.29 MMBtu/hr LPG-fired heaters do or do not meet the MACT DDDDD definition of process heater.

The heaters are being used for intermittent space heating only. The heaters are located at the circulating water pumps and are used to prevent the traveling screens from freezing in the winter. They are not used every year, but operated only when they are needed. As per the definition of a process heater (40 CFR Part 63.7575), "Process heaters do not include units used for comfort heat or space heat".

6. Would you please submit your phenol emission factors for EP-01 and EP-02 that were used to determine EIQ emissions? I was able to locate a phenol emission factor in AP-42 of 1.6E-5 lb/ton; however, using it results in lower potential emissions than actual reported emissions in the 2017, 2016, 2015, 2014, and 2013 EIQs. I'm guessing that you all are using some type of site specific value. This doesn't have any permitting implications, I just want to provide an accurate phenol PTE in the statement of basis.

For the 2013 through 2017 EIQ's, New Madrid used the Electric Power Research Institute (EPRI) mean of 3.3 lb/TBtu. Additional conversions must be used to arrive to the pounds of phenol produced.

Thanks,

Mallory Langford

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From: Langford, Mallory

Sent: Monday, November 19, 2018 2:49 PM

To: 'Hess, Alana' <Alana.Hess@dnr.mo.gov>

Cc: Wells, Jay <JWells@aeci.org>; Henry, Tadd <thenny@aeci.org>; Farmer, Kevin <KFarmer@aeci.org>; Pinkerton, Blake <BPinkerton@aeci.org>

Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

Alana,

We've continued to review the New Madrid draft permit, but due to the all the changes being incorporated, we will not have our comments available by the end of the month. We would like to request another extension with the due date of December 31, 2018.

We still plan to have the answers to your questions available by November 30, 2018.

Thank you for the consideration.

Mallory Langford

Environmental Analyst
2814 S. Golden Ave.
Springfield, MO 65807
(417) 371-5237 Office
(816) 787-7431 Cell
mlangford@aeci.org



From: Hess, Alana <Alana.Hess@dnr.mo.gov>

Sent: Wednesday, October 31, 2018 12:17 PM

To: Langford, Mallory <mlangford@aeci.org>

Cc: Wells, Jay <JWells@aeci.org>; Henry, Tadd <thenny@aeci.org>; Farmer, Kevin <KFarmer@aeci.org>; Pinkerton, Blake <BPinkerton@aeci.org>

Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

****EXTERNAL E-MAIL** Think before clicking links or attachments.**

Extension granted. I'll look for your comments and responses on November 30, 2018. Have a Happy Halloween and Thanksgiving!

Thanks,

Alana L. Hess, P.E.

Air Pollution Control Program

P.O. Box 176

Jefferson City, MO 65102

(573) 526-0189

We'd like your feedback on the service you received from the Missouri Department of Natural Resources. Please consider taking a few minutes to complete the department's Customer Satisfaction Survey at https://secure.web.cisco.com/1n1fAXbmqhA8TbDKwe3Ujn9BduUBd8jynbdpVXEutsl.e1O9k47NYQ5xbrazCmyMQM4HzlCvDjyaLN_IsAS3qzslTs-v5_PAqAflUtw9E1O5mmSL-FbjCNaffniylBflFiyQ69CyW7D3shXtuertGwT3VwVR6nHNKm:IQdmAX6S0hxUqagraqObrTOF2XBvDHG8wg9sqkNRPNdCoxmjfSUi9dmMmp0LQZ16up9mPyy8vQycDrTu-6MLaua0T2_RQ17qeIWB2-iUSeF-au0aaIa/https%3A%2F%2Fwww.surveymonkey.com%2F%2FmoDNRsurvey. Thank you.

From: Langford, Mallory <mlangford@aeci.org>

Sent: Wednesday, October 31, 2018 11:21 AM

To: Hess, Alana <Alana.Hess@dnr.mo.gov>

Cc: Wells, Jay <JWells@aeci.org>; Henry, Tadd <thenny@aeci.org>; Farmer, Kevin <KFarmer@aeci.org>; Pinkerton, Blake <BPinkerton@aeci.org>

Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

Alana,

Thank you for the draft operating permit and questions, we have begun reviewing both. Due to the complexity of the operating permit, we would like to request that the due date for the comments and questions be extended to November 30, 2018.

Thank you for the consideration.

Mallory Langford

Environmental Analyst
2814 S. Golden Ave.
Springfield, MO 65807
(417) 371-5237 Office
(816) 787-7431 Cell
mlangford@aeci.org



From: Hess, Alana <Alana.Hess@dnr.mo.gov>

Sent: Tuesday, October 30, 2018 3:55 PM

To: Pinkerton, Blake <BPinkerton@aeci.org>; Langford, Mallory <mlangford@aeci.org>

Cc: Wells, Jay <JWells@aeci.org>; Henry, Tadd <thenny@aeci.org>; Farmer, Kevin <KFarmer@aeci.org>

Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

****EXTERNAL E-MAIL** Think before clicking links or attachments.**

Ms. Langford,

Thank you for submitting additional information on August 17, 2018.

Would you please provide answers to the following additional questions I have about the installation by **November 14, 2018**?

- Now that the landfill is in operation, is FE-03 Fly Ash Unloading to the Ash Ponds still an active emission source? I.e., does FE-03 need to remain in the permit?
- Does the installation use CyClean still? I.e., do the CyClean emission sources need to be included in the permit?
- Questions regarding IA-04 (5) Glycol tanks and IA-18 Glycol Heater Vents:
 - By Glycol do you mean Ethylene Glycol (107-21-1)? If not, ethylene glycol, would you please provide a CAS # or SDS for the glycol? This doesn't really have any permitting implications, I'm just trying to get accurate information for the PTE in the Statement of Basis.
 - What is this glycol used for? This doesn't really have any permitting implications, I'm just trying to get accurate information for the installation/emission source description in the Statement of Basis.
 - Is the heater electric or does it combust fuel? If it combusts fuel:
- Please indicate the type and MHDR.
- Please explain why AECl believes this heater does or does not meet the MACT DDDDD definition of process heater.
 - Could you describe IA-20 Soot Blowing Air Compressor Vents in more detail? Please explain why AECl believes this emission source does or does not emit visible emissions.
 - Please explain why AECl believes IA (2) 2.29 MMBtu/hr LPG-fired heaters and (2) 2 MMBtu/hr LPG-fired heaters do or do not meet the MACT DDDDD definition of process heater.
- Would you please submit your phenol emission factors for EP-01 and EP-02 that were used to determine EIQ emissions? I was able to locate a phenol emission factor in AP-42 of 1.6E-5 lb/ton; however, using it results in lower potential emissions than actual reported emissions in the 2017, 2016, 2015, 2014, and 2013 EIQs. I'm guessing that you all are using some type of site specific value. This doesn't have any permitting implications, I just want to provide an accurate phenol PTE in the statement of basis.

Attached is a mainly complete draft operating permit. Please review the draft and submit any questions/comments you may have by **November 14, 2018**.

Thanks,

Alana L. Hess, P.E.

Air Pollution Control Program

P.O. Box 176

Jefferson City, MO 65102

(573) 526-0189

We'd like your feedback on the service you received from the Missouri Department of Natural Resources. Please consider taking a few minutes to complete the department's Customer Satisfaction Survey at https://secure-web.cisco.com/1xkFVR8PbsXJkyGsZ6id1X3lly5yMskhltrQ86dsAdXqwbwUWVWCHQKioalIXmIWZ1YOG0ZaQTr_bjtWTPdI_Qe5jckVmlJwKpu-vPWzcVWen7lArchIuIvWm92FJln99oUHBjGcIK5KGdkd8pZThUCh12Gb5awb3gRVl8b_Wgs8fh_8lNjpwYlOwmxrJrNOBPubnqcQEDcGSTVQw-FcdwIMsqW1alIa1C424q8TLEf_dXmY9mOIT86wvlj6cEKvam76fM11ON8l62clq/https%3A%2F%2Fwww.surveymonkey.com%2F%2FmoDNRsurvey. Thank you.

From: Hess, Alana

Sent: Friday, August 3, 2018 2:54 PM

To: 'Pinkerton, Blake' <BPinkerton@aeci.org>

Cc: Wells, Jay <JWells@aeci.org>; Henry, Tadd <thenry@aeci.org>; Farmer, Kevin <KFarmer@aeci.org>

Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

Blake,

I am still working on New Madrid's operating permit. I wondered if you could answer a few questions for me:

1. For MATS does New Madrid use just one set of sorbent traps to demonstrate compliance with the applicable Hg emission limit? I.e. is New Madrid complying with §63.10000(c)(1)(vi)(A) or §63.10000(c)(1)(vi)(B)?
2. According to page SB-4 of Operating Permit OP2010-1168, the Barge River Pumps are used to pump cooling water during low river flow. How does New Madrid pump their cooling water during normal/high river flow?
3. MoEIS includes an EP-10 Internal Combustion Engines Industrial – Large Bore Engine Diesel Fuel Fired which is labelled as active for the installation; however, I cannot locate this engine(s) anywhere in the previous operating permit or application. Please indicate if this is still an active emission source. If it is please provide the number of engines, size of each engine, and model year of each engine.
4. Please submit your Phase II NOx Compliance Plan (and Phase II NOx Averaging Plan if applicable) for Boilers 1 and 2.
5. Please submit a CAIR Permit application. Although rescinded on the federal level, the CAIR program remains in our State Implementation Plan (SIP); therefore, technically we still have to have a CAIR permit in the Part 70 as CAIR is technically still an applicable requirement. We are working on removing CAIR requirements from our SIP.

Please try to provide this information by August 20, 2018.

Thanks,

Alana L. Hess, P.E.

Air Pollution Control Program

P.O. Box 176

Jefferson City, MO 65102

(573) 526-0189

We'd like your feedback on the service you received from the Missouri Department of Natural Resources. Please consider taking a few minutes to complete the department's Customer Satisfaction Survey at https://secure-web.cisco.com/1xkFVR8PbsXJkyGsZ6id1X3lly5yMskhltrQ86dsAdXqwbwUWVWCHQKioalIXmIWZ1YOG0ZaQTr_bjtWTPdI_Qe5jckVmlJwKpu-vPWzcVWen7lArchIuIvWm92FJln99oUHBjGcIK5KGdkd8pZThUCh12Gb5awb3gRVl8b_Wgs8fh_8lNjpwYlOwmxrJrNOBPubnqcQEDcGSTVQw-FcdwIMsqW1alIa1C424q8TLEf_dXmY9mOIT86wvlj6cEKvam76fM11ON8l62clq/https%3A%2F%2Fwww.surveymonkey.com%2F%2FmoDNRsurvey. Thank you.

From: Pinkerton, Blake <BPinkerton@aeci.org>

Sent: Monday, April 10, 2017 4:27 PM

To: Hess, Alana <Alana.Hess@dnr.mo.gov>

Cc: Wells, Jay <JWells@aeci.org>; Henry, Tadd <thenry@aeci.org>; Farmer, Kevin <KFarmer@aeci.org>

Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

Ms. Hess,

Please see the responses to your questions below regarding our New Madrid Power Plant.

Please provide answers to the following questions:

1. Are the two 2.4 MMBtu/hr fuel oil heaters in No Construction Permit Required Determination 2016-01-004 (2016-01-004.pdf) EU0290 and EU0300 Tioga Heaters or are these different heaters? **The Tioga Heaters referenced as EU0290 and EU0300 are hard piped stationary units used at the crusher house. The units referenced in the No Construction Permit Required Determination are the same type/size, but skid mounted (portable) and rented for short term use during the winter months.**
2. No Construction Permit Required Determination 2012-06-072 states that you planned to use 14 275 HP barge pumps instead of EP-09 8 300 HP barge pumps and EP-13 2 345 HP barge pumps. Did this change occur? **The change did not occur. Still have the 8 as EP-09 and 2 as EP-13.**
3. How many acres are active at any given time in the landfill? **Each cell is 25 acres. Only 1 cell will be "active" at a time. Currently using Phase L- Cell 1, will switch to Phase III – Cell 2 when full.**
4. Construction Permit 092006-004 states that Boilers 1 and 2 have an MHDR of 7,150 MMBtu/hr, EPA's Air Markets Program indicates that Boiler 1 has an MHDR of 6,728 MMBtu/hr and Boiler 2 has an MHDR of 6,985 MMBtu/hr; however, the previous operating permit and your application state the MHDRs are only 6,340 MMBtu/hr. Please explain these discrepancies. EPA generally requires us to use the MHDR in the Air Markets Program unless sufficient justification can be provided for an increase/decrease in the MHDR. **I do not have the historical data on this but the higher number may have been used to represent the higher BTU Illinois coal before the switch to PRB. We are not opposed to using the numbers listed in the Air Markets Program but what would the implications be for using those numbers if it is found that the 6,340 MMBtu/hr is a better number?**
5. Would you please send me a copy of New Madrid's MATS initial NOC? **I have attached a copy to this email.**

From: Hess, Alana [<mailto:Alana.Hess@dnr.mo.gov>]

Sent: Wednesday, March 29, 2017 3:01 PM

To: Wells, Jay <JWells@aeci.org>; Henry, Tadd <thenry@aeci.org>

Subject: RE: 2015-04-093 New Madrid Power Plant (143-0004)

Mr. Wells,

Please provide answers to the following questions:

1. Are the two 2.4 MMBtu/hr fuel oil heaters in No Construction Permit Required Determination 2016-01-004 (2016-01-004.pdf) EU0290 and EU0300 Tioga Heaters or are these different heaters?
2. No Construction Permit Required Determination 2012-06-072 states that you planned to use 14 275 HP barge pumps instead of EP-09 8 300 HP barge pumps and EP-13 2 345 HP barge pumps. Did this change occur?
3. How many acres are active at any given time in the landfill?
4. Construction Permit 092006-004 states that Boilers 1 and 2 have an MHDR of 7,150 MMBtu/hr, EPA's Air Markets Program indicates that Boiler 1 has an MHDR of 6,728 MMBtu/hr and Boiler 2 has an MHDR of 6,985 MMBtu/hr; however, the previous operating permit and your application state the MHDRs are only 6,340 MMBtu/hr. Please explain these discrepancies. EPA generally requires us to use the MHDR in the Air Markets Program unless sufficient justification can be provided for an increase/decrease in the MHDR...
5. Would you please send me a copy of New Madrid's MATS initial NOC?

Alana L. Hess, PE

Environmental Engineer III

Missouri Department of Natural Resources

Phone: (573) 526-0189

Fax: (573) 751-2706

E-mail: alana.hess@dnr.mo.gov

Mailing Address:

Air Pollution Control Program – Permits Section

Attn: Alana Hess

P.O. Box 176

Jefferson City, MO 65102

From: Hess, Alana

Sent: Tuesday, March 28, 2017 10:41 AM

To: jwells@aeci.org; thenry@aeci.org

Subject: 2015-04-093 New Madrid Power Plant (143-0004)

Mr. Wells,

My name is Alana Hess. I am an Environmental Engineer with the Missouri Department of Natural Resources' Air Pollution Control Program. I have been assigned to review the Part 70 operating permit renewal application, Project 2015-04-093, for New Madrid Power Plant (143-0004).

I may have questions for you throughout my review and drafting of the permit. Please respond to all questions within 15 days. An extension is available upon request.

I look forward to working with you.

Thanks,

Alana L. Hess, PE

Environmental Engineer III

Missouri Department of Natural Resources

Phone: (573) 526-0189

Fax: (573) 751-2706

E-mail: alana.hess@dnr.mo.gov

Mailing Address:

Air Pollution Control Program – Permits Section

Attn: Alana Hess

P.O. Box 176

Jefferson City, MO 65102